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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/518,773   | 12/17/2004  | David N. Johnson     | 0275Y-000608NPB               | 4910             |
| 7590   | 11/16/2005  |                      |                               |                  |
| Christopher M Brock<br>Harness Dickey & Pierce<br>PO Box 828<br>Bloomfield Hills, MI 48303 |             |                      | EXAMINER<br>LANDRUM, EDWARD F |                  |
|  |             |                      | ART UNIT                      | PAPER NUMBER     |
|  |             |                      | 3724                          |                  |

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/518,773

Applicant(s)

JOHNSON ET AL.

Examiner

Edward F. Landrum

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/17/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 22', and 32'. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner et al (U.S. Patent No. 4,604,933) in view of Kullmann et al '296 (U.S. Patent No. 5,425,296).

Lesher teaches (see Figures 1-6) an annular body (5), having a plurality of shoulders (8 and 9), with one insert (18 and 19) attached to each shoulder, each insert having two cutting surfaces (23 and 24, or 38 and 37) with one surface on each insert (23 or 38) being disposed generally parallel to the rotational axis of the annular body (5). The inserts are carbide (Col. 4, lines 66-68). Lesher further teaches the interface of adjacent inserts being closer to alternate sides of the annular body, and the back angle of the cutting inserts being about 10 degrees (Col. 5, lines 54-56).

Lesher teaches all of the elements of the current invention except the second cutting surface is offset between 10 and 30 degrees from the axis of rotation of the annular body.

Kullmann '296 teaches (Col. 7, lines 21-23; also see Figures 3 and 4) inserts with a second cutting surface edge surfaces with an angle (9), that can be offset about 10 to 30 degrees from the axis of rotation of the annular body.

It would have been obvious to have modified Lesher to incorporate the teachings of Kullmann '296 to create inserts for saw blades by incorporating a specific angle for the second cutting surface for the purpose of avoiding the adverse influence of transverse forces which hinder a saw blade's ability to make a straight cut.

Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

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4. Claims 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner in view of Kullmann '296, in further view of Morris et al (U.S Publication No. 2002/0194974).

The modified device of Leshner teaches all of the elements of the current invention as stated above except the materials and percentage of these materials found in the carbide inserts.

Morris teaches (Paragraph 17) forming carbide inserts with, 8.6% TiC, 12% TaNbc, and 9.5% Co for the purpose of promoting crater and flank wear resistances on carbide cutting tools.

It would have been obvious to have modified the modified device of Leshner to incorporate the teachings of Morris by providing carbide inserts with 8.6% TiC, 12% TaNbc, and 9.5% Co for the purpose of protecting the cemented metal carbide substrate from the corrosive atmosphere and from abrasion, thereby prolonging the life of the carbide inserts..

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Henderson (U.S Patent No. 3,176,732), Henning et al (U.S Patent No. 4,867,026), Hayden et al (U.S Patent No. 4,784,033), Kubis (U.S Patent No. 5,054,354), Carlsen et al '547 (U.S Patent No. 5,884,547), Carlsen et al '573 (U.S Patent No. 6,427,573), Kurelek et al (U.S Publication No. 2002/0000150), and Drake (U.S Patent No. 2,659,397) teach inserts for saws. Mattes (U.S Patent No. 4,137,808), Weible et al

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(U.S Patent No 87,891), McLean (U.S Patent No. 790,072), Ronan (U.S Patent No. 2,227,864), Harrison (U.S Patent No. 859,652), and Mason (U.S Patent No. 29,982) teach alternating edge saw blades.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward F. Landrum whose telephone number is 571-272-5567. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EFL  
10/21/2005

  
Allan N. Shoap  
Supervisory Patent Examiner  
Group 3700